



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

TS

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/006,363 01/13/98 NAKAGAWA

K 47958

EXAMINER

LM01/0523

DIKE BRONSTEIN
ROBERT & CUSHMAN
130 WATER STREET
BOSTON MA 02109

NGUYEN, T
ART UNIT

PAPER NUMBER

2778
DATE MAILED:

05/23/00

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/006,363

Applicant(s)

Katsuya Nakagawa

Examiner

Jimmy H. Nguyen

Group Art Unit

2778



☒ Responsive to communication(s) filed on Mar 20, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-6 is/are pending in the application

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-6 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Art Unit: 2778

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 2, 3, 5 and 6 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not disclose or teach **how a trace 56 knows when it reaches to a middle position** and then returns. In other word, the Examiner cannot figure out **how to determine the middle position or the furthest returning position without the position of the general key**, which is determined later by doubling a distance from the special key to the middle point as recited in claims above. Furthermore, for given a position of a first point, how a person can determine where the middle point of two points should be without knowing a position of a second point. Therefore, these claims are rejected for the reason as set forth above.

Art Unit: 2778

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette et al. (USPN: 5,581,243).

As per claims 1 and 4, Ouellette et al. discloses a virtual keyboard comprising a display (28) for displaying a keyboard (K), a transparent pressure sensitive panel (24) disposed on the display and a processor (18) for receiving information of positions detected and sent in a time sequence from the pressure sensitive panel when any key in the keyboard is pushed, identifying a position of the pushed key according to the received position information and outputting a code corresponding to a pushed key (figure 1, column 1, lines 47-60 and column 5, lines 4-10).

Ouellette et al. further discloses a virtual keyboard functioning as a conventional keyboard (column 1, lines 51-63). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize that when a combination of a special key "Shift key" and a general key "a key" on a conventional keyboard are pushed at the same time, the keyboard outputs a "A" code corresponding to the pushed combination of the special key and the general

Art Unit: 2778

key. In other word, Ouellette et al. obviously discloses the claimed device as recited in the claims. Therefore, these claims are rejected for the reason as set forth above.

5. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette et al. (USPN: 5,581,243) in view of Dunthorn (USPN: 4,914,624).

As per claims 1 and 4, Ouellette et al. discloses a virtual keyboard comprising a display (28) for displaying a keyboard (K), a transparent pressure sensitive panel (24) disposed on the display and a processor (18) for receiving information of positions detected and sent in a time sequence from the pressure sensitive panel when any key in the keyboard is pushed, identifying a position of the pushed key according to the received position information and outputting a code corresponding to a pushed key (figure 1, column 1, lines 47-60 and column 5, lines 4-10).

Ouellette et al. further discloses a virtual keyboard functioning as a conventional keyboard (column 1, lines 51-63). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to recognize that when a combination of a special key "Shift key" and a general key "a key" on a conventional keyboard are pushed at the same time, the keyboard outputs a "A" code corresponding to the pushed combination of the special key and the general key.

However, in order to convince Ouellette et al.'s virtual keyboard having a capability for outputting a code corresponding to a combination of the special key and the general key as discussed above, Dunthorn teaches that when two keys are pushed simultaneously, a processor

Art Unit: 2778

outputs a code corresponding to the pushed combination of the two pushed keys (column 4, lines 4-10 and lines 58-68).

Ouellette et al. discloses the claimed device except that Ouellette et al. does not disclose expressly a combination of two keys simultaneously pushed. Dunthorn teaches that when two keys are pushed simultaneously, a processor outputs a code corresponding to the pushed combination of the two pushed keys. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide Ouellette et al.'s virtual keyboard such feature, so that the virtual keyboard provides more useful functions to a user without increasing a number of keys on the virtual keyboard as taught by Dunthorn (column 4, lines 65-68).

Therefore, it would have been obvious to combine Dunthorn with Ouellette et al. to obtain the invention as specified in claims.

Response to Arguments

6. Applicant's arguments filed "Accordingly, ... general key" have been fully considered but they are not persuasive, because the Examiner cannot find wherein the application, especially figure 5 and pages 8-11, discloses **how a trace 56 knows when it reaches to a middle position and then returns**. In other word, the Examiner cannot figure out **how to determine the middle position or the furthest returning position (X2, Y2)**. Therefore, the rejection is maintained.

Art Unit: 2778

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday thru Thursday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached on (703) 305-4938.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051 (for formal communications intended for entry)

(703) 308-6606 (for informal or draft communications, please label

“Proposed” or “Draft”)

Hand delivered response should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth floor (Receptionist).

JHN

05/17/2000


Amare Mengistu
Primary Examiner